

LISTING OF THE CLAIMS:

1. (previously presented) A method comprising
receiving data packets at a communications node,
associating each of the received data packets with one of a set of different service classes,
transmitting packets corresponding to the received data packets to recipients, and
controlling the order in which packets are transmitted based on the transmission rate and
the service class of the packets.
2. (original) The method of claim 1 in which the transmitted packets comprise
physical layer packets.
3. (original) The method of claim 1 in which the rates of transmission are controlled
based on a time-division multiplexing algorithm.
4. (original) The method of claim 1 in which the node comprises a radio node of a
communications protocol.
5. (original) The method of claim 4 in which the communications protocol
comprises HDR.
6. (original) The method of claim 1 in which the different classes of service conform
to a differentiated services architecture.
7. (original) The method of claim 6 in which the differentiated services architecture
comprises DiffServ.
8. (original) The method of claim 1 in which the service classes comprise at least
one expedited forwarding class and at least one assured forwarding class.
9. (original) The method of claim 1 also including receiving a user-defined
minimum average forwarding percentage rate for at least one of the different service classes.
10. (original) The method of claim 9 in which the percentage comprises a percentage
of the total bandwidth of a link on which the packets are transmitted.
11. (original) The method of claim 1 in which the transmission rate is determined by
the recipients.
12. (original) The method of claim 11 in which the transmission rates are sent by the
recipients using a feedback channel to the node.

13. (previously presented) The method of claim 1 in which an order of transmission of the packets is controlled by two-level scheduling including a class level in which ordering is determined among the classes of service and a recipient level in which ordering is determined among the recipients associated with each class.

14. (original) The method of claim 13 in which the recipient level uses the Qualcomm algorithm.

15. (original) The method of claim 13 in which the class level scheduling is based on at least one of the following for each of the classes: a configured minimum average forwarding rate percentage for the class, an actual forwarding rate percentage recently received by the class, and a channel quality for the recipients that belong to the class and are selected to receive service by the recipient level scheduling.

16. (original) The method of claim 13 in which the class level scheduling is done over a predetermined length window of time slots.

17. (original) The method of claim 13 in which the class level scheduling includes a weighted round robin scheduling algorithm in which the weights correspond to channel quality of the recipients belonging to the respective classes.

18. (previously presented) The method of claim 13 in which the class level scheduling is based at least in part on a planned selection at the recipient level within each class.

19. (original) The method of claim 18 in which the class level scheduling is based on a metric scaled by different scaling factors for different service classes.

20. (original) The method of claim 19 in which the scaling factors for all service classes are adaptively adjusted to meet the MAFRP for the service classes.

21. (original) The method of claim 18 in which the class level scheduling is based on a metric which is adaptively adjusted to meet the MAFRP for the service classes.

22. (original) The method of claim 13 in which the class level scheduling selects a class from among a subset of the classes.

23. (previously presented) The method of claim 22 in which the members of the subset of classes are determined by pre-assigned schedule times.

24. (original) The method of claim 13 in which the recipient level scheduling selects a recipient from among a subset of the recipients.

25. (previously presented) The method of claim 24 in which the members of the subset of recipients are determined by pre-assigned schedule times.

26. (previously presented) Apparatus comprising
a communications node configured to receive data packets, associate each of the received data packets with one of a set of different service classes, transmit packets corresponding to the received data packets to recipients, and control the order in which packets are transmitted based on the transmission rate and the service class of the packets.

27. (original) A method comprising
receiving from a network operator values representing minimum average forwarding rate percentages for each of more than one distinct classes of service associated with transmission of packets from a radio node of a network to recipients, and
scheduling packets for transmission among the different classes based on the received values.

28. (new) The method of claim 1 in which a transmission rate varies based on a quality of a channel that serves the recipient.

29. (new) The method of claim 28 in which the transmission rate varies based on an instantaneous quality of a channel that serves the recipient when a packet is to be transmitted.